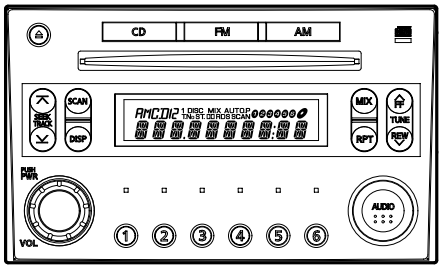
Clarion

Clarion Co., Ltd.
50 Kamitoda, Toda-shi, Saitama 335-8511 Japan
Service Dept.: 5-66 Azuma , Kitamoto-shi, Saitama 364-0007 Japan
Tel: +81-48-541-2335 / 2432 FAX: +81-48-541-2703

Published by Service Dept.
298-6019-00 Nov.2002 P
Printed in Japan

Service Manual



NISSAN Automobile Genuine
AM/FM Radio CD Stereo

Model PP-2515L
(Genuine No. 28185 CD000)
(ID No. CY330)

SPECIFICATIONS

Radio section

Tuning system:	PLL frequency synthesizer system
Receive range:	AM 530kHz to 1710kHz
	FM 87.9MHz to 107.9MHz
Intermediate frequency:	
	AM 450kHz
	FM 10.7MHz
Quieting sensitivity:	AM Less than 38dBu(at 20dB S/N)
	FM Less than 15dBu(at 30dB S/N)
Separation:	FM 22+5/-7dB(1kHz)
Auto tuning stop sensitivity:	
	AM 42+6/-6dBu(600kHz)
	39+6/-6dBu(1000/1400kHz)
	FM 32+6/-6dBu

CD section

Disc:	12cm,8cm Disc
Separation:	More than 50dB(20kHz LPF)
S/N ratio:	More than 74dB

AUX(CD) section

Separation:	More than 52dB(1kHz,3.0V input)
S/N ration:	More than 74dB(1kHz,3.0V input)
CMRR:	More than 40dB(1kHz,3.0V input)

General

Load impedance:	4 ohm
Power output:	40Wx4
Power supply voltage:	DC13.2V(10.8V to 15.6V)
	Negative ground
Back-up consumption:	Less than 3mA
Dimensions(mm):	180(W) x 108(H) x 157.1(D)

* Specifications and design are subject to change without notice for further improvement.

COMPONENTS

PP-2515L-A

Main unit	----------	1

NOTE

We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing

company.

3. Check for safety after repair.
   Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.
6. Cautions in handling flexible PWB
   Before working with a soldering iron, make sure that the iron tip temperature is around 270℃. Take care not to apply the iron tip repeatedly(more than three times)to the same patterns. Also take care not to apply the tip with force.
7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
8. Cautions in checking that the optical pickup lights up.
   The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.
9. Cautions in handling the optical pickup
   The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

9-1. Laser diode
   The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

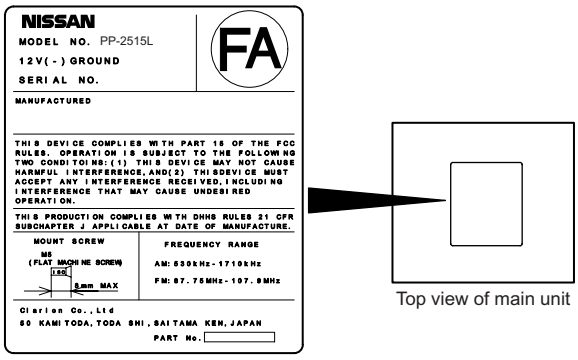
9-2. Actuator
   The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

9-3. Cleaning the lens
   Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

CAUTIONS

Use of controls,adjustment,or performance of procedures other than those specified herein,may result in hazardous radiation exposure.

The compact disc player should not be adjusted or repaired by anyone except properly qualified service personnel.

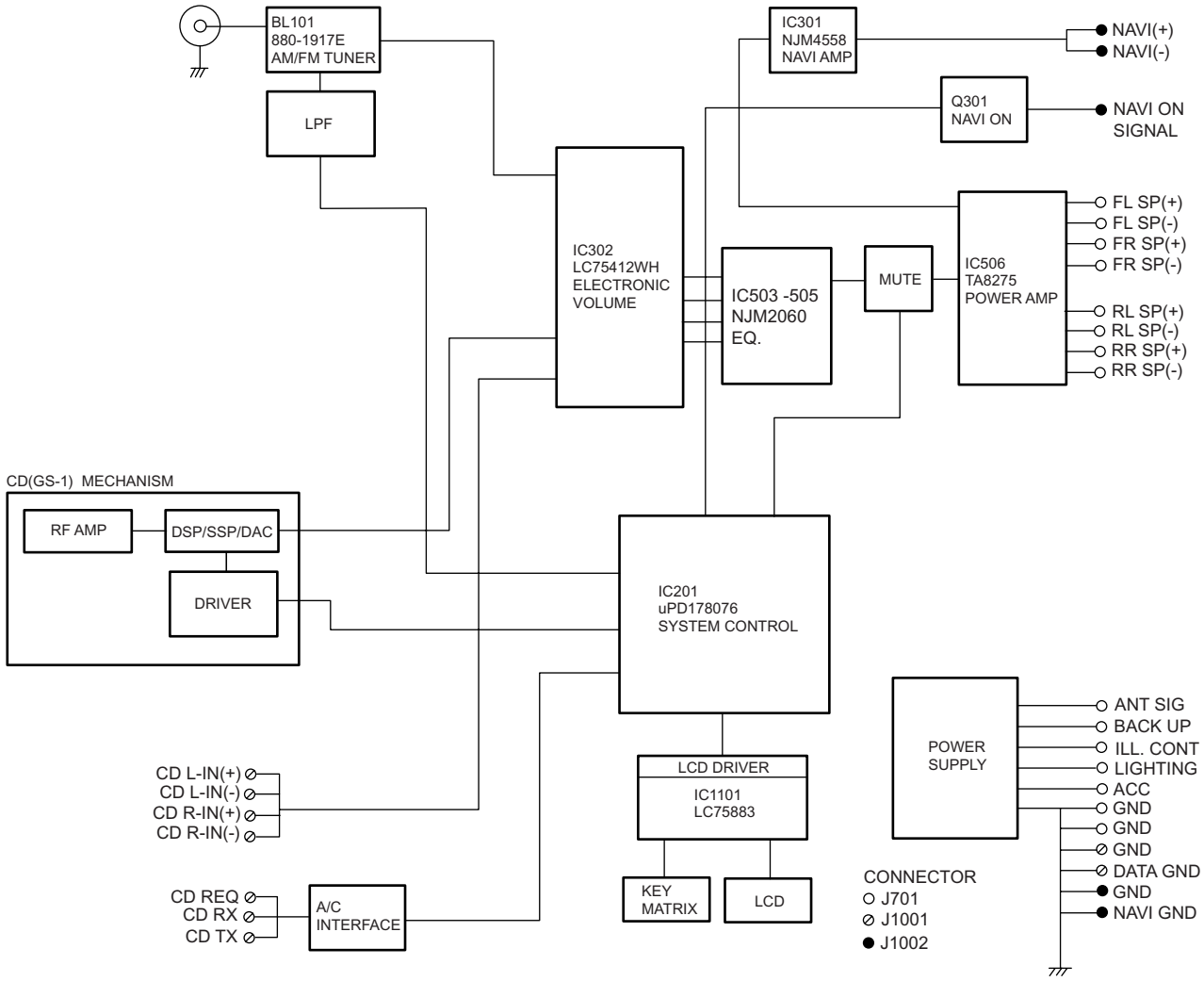

NISSAN
MODEL NO. PP-2515L
12V(-)GROUND
SERIAL NO.
FA
MANUFACTURED
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
THIS PRODUCT ION COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.
MOUNT SCREW
M5
(FLAT MACHINE SCREW)
8mm MAX
FREQUENCY RANGE
AM: 530kHz-1710kHz
FM: 87.75MHz-107.9MHz
Clarion Co., Ltd
50 KAMITODA, TODA SHI, SAITAMA KEN, JAPAN
PART No.

Top view of main unit

ADJUSTMENT

Item	Procedure	Measuring instrument
Clock accuracy	1. Turn off and on the ACC switch, while holding CD-EJECT button and Power button. Repeat it twice slowly. 2. Set a universal counter to TP201,adjust TC201 so that a reading of the counter is 0+0.1/-0.1 sec./day.	Universal counter
FM noise convergence	1. Input the 98.1MHz/55dBu(1kHz,30% MOD)signal.(VOL1.4V=0dB) 2. Adjust the outputs to -22+3/-3dB by VR102 when the SG output is set -20dBu.	SSG Milli-volt meter

BLOCK DIAGRAM



EXPLANATION OF IC

052-1173-20 uPD178076GF-568-3BA System Controller

1.Terminal Description

pin 1: EJECT SW	:IN	Eject switch signal input.
pin 2: NAVI ON	:IN	NAVI ON signal input.
pin 3: NU	: -	Not in use.
pin 4: VOL DATA	: O	The serial data output to the volume IC.
pin 5: VOL CLK	: O	The clock pulse output to the volume IC.
pin 6: VOL CE	: O	The chip enable signal output to the volume IC.
pin 7: NU	: -	Not in use.
pin 8: LCD DI	:IN	The srial data input from the LCD driver.
pin 9: LCD DO	: O	The srial data output to the LCD driver.
pin 10: LCD CLK	: O	The clock pulse output to the LCD driver.
pin 11: LCD CE	: O	The chip enable signal output to the LCD driver.
pin 12: LCD RST	: O	Reset pulse output to LCD driver.
pin 13: POWER SW	:IN	Power switch ON signal input.
pin 14: VOL 1	:IN	Volume control pulse input from the rotary encoder.
pin 15: VOL 2	:IN	Volume control pulse input from the rotary encoder.
pin 16: NU	: -	Not in use.
pin 17: ILL	:IN	Illumination ON signal input.
pin 18: NU	: -	Not in use.
pin 19: NU	: -	Not in use.
pin 20: NU	: -	Not in use.
pin 21: NU	: -	Not in use.
pin 22: NU	: -	Not in use.
pin 23: REM A	:IN	Remote control signal input.
pin 24: REM B	:IN	Remote control signal input.
pin 25: ILL AD	:IN	The analog voltage input for illumination signal.
pin 26: NU	: -	Not in use.
pin 27: A VDD	: -	Positive supply voltage for the Analog section.
pin 28: NU	: -	Not in use.
pin 29: NU	: -	Not in use.
pin 30: NU	: -	Not in use.
pin 31: NU	: -	Not in use.
pin 32: A VSS	: -	Analog ground.
pin 33: REG CPU	:IN	The capacitor connection terminal to suppress the ripple.
pin 34: VDD	: -	Positive supply voltage.
pin 35: REG OSC	:IN	The capacitor connection terminal to suppress the ripple.
pin 36: X 2	: -	Crystal connection.
pin 37: X 1	: -	Crystal connection.
pin 38: GND	: -	Ground.
pin 39: NU	: -	Not in use.
pin 40: GND	: -	Ground.
pin 41: AM IF IN	:IN	The input terminal of the internal counter for AM IF.
pin 42: FM IF IN	:IN	The input terminal of the internal counter for FM IF.
pin 43: VDD PLL	: -	Positive supply voltage for the PLL.
pin 44: FM OSC IN	:IN	The input terminal of the internal counter for FM OSC (Local Oscillation).
pin 45: AM OSC IN	:IN	The input terminal of the internal counter for AM OSC (Local Oscillation).
pin 46: GND PLL	: -	Ground for the PLL.
pin 47: VT	: O	PLL error signal output.
pin 48: NU	: -	Not in use.
pin 49: IC	:IN	Connect to the ground.

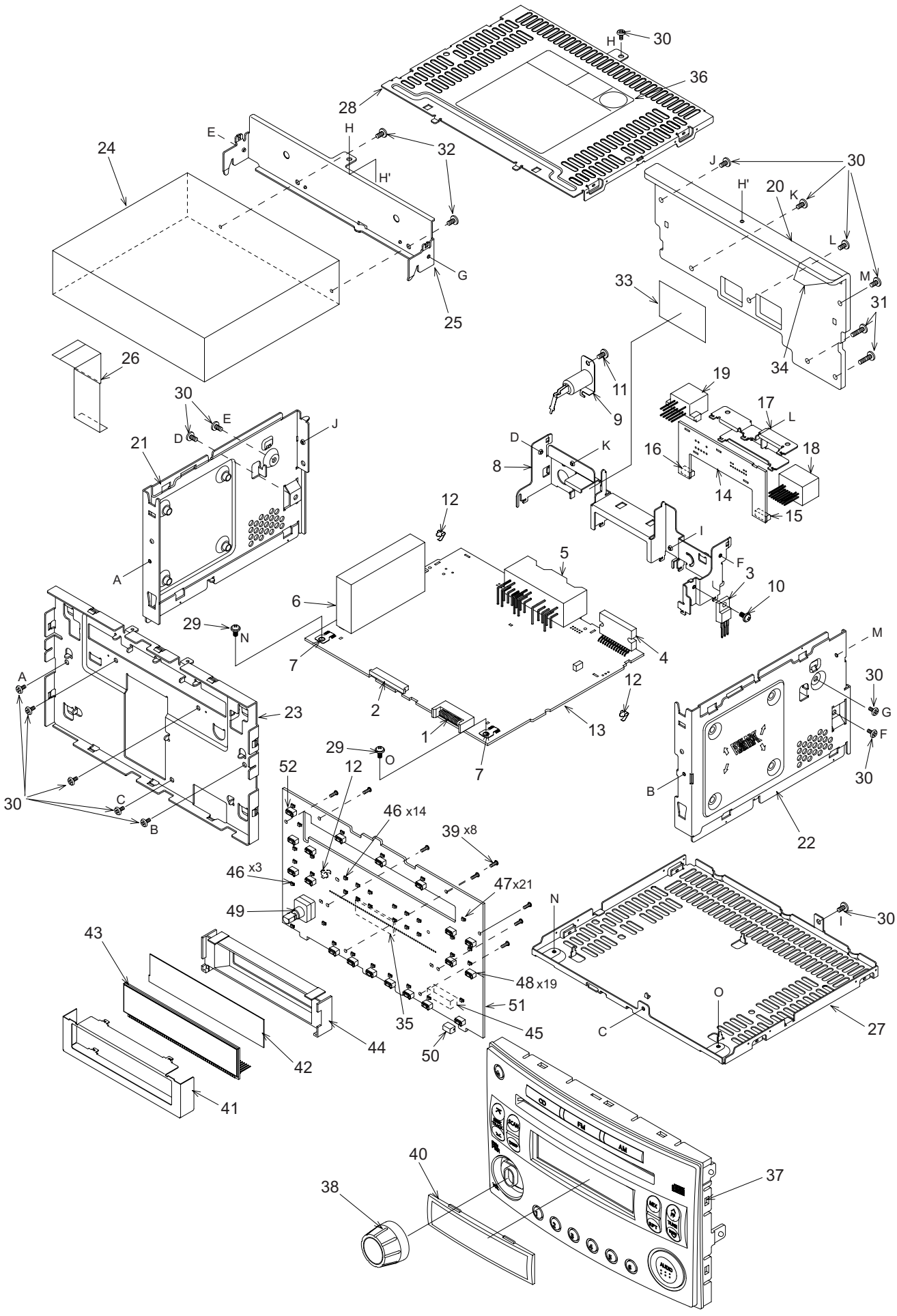
pin 50: RESET : IN : Reset signal input.
pin 51: TEL ON : IN : Telephone ON signal input.
pin 52: NU : - : Not in use.
pin 53: ST/TWEET : I/O: Outputs "L" at AM 900kHz receiving. Inputs "L" at FM stereo receiving.
pin 54: NU : - : Not in use.
pin 55: NU : - : Not in use.
pin 56: CNGND : - : Connect to the ground.
pin 57: NU : - : Not in use.
pin 58: NU : - : Not in use.
pin 59: BEEP : O : Beep out.
pin 60: RADIO ON : O : Radio ON signal output.
pin 61: DIM PWM : O : Dimmer PWM output.
pin 62: CD RESET : O : The reset pulse output to the CD IC.
pin 63: FRONT MUTE : O : The audio mute signal output for the front channels.
pin 64: REAR MUTE : O : The audio mute signal output for the rear channels.
pin 65: NU : - : Not in use.
pin 66: FM ON : O : FM ON signal output.
pin 67: AM ON : O : AM ON signal output.
pin 68: CD ON : O : CD ON signal output.
pin 69: NDS RX : IN : NDS serial data input from NDS-A/C.
pin 70: NDS TX : O : NDS serial data output to NDS-A/C.
pin 71: NDS REQ : IN : The request pulse from NDS.
pin 72: RF MUTE : O : Radio frequency signal muting.
pin 73: DX/LO : O : DX/Local select signal output.
pin 74: SYS ON : O : System ON signal output.
pin 75: AMP ON : O : Audio power amplifier ON signal output.
pin 76: NU : - : Not in use.
pin 77: NU : - : Not in use.
pin 78: ACC IN : IN : ACC detection signal intput.
pin 79: ILL PULSE : IN : Illumination control signal input.
pin 80: NO A/C : IN : Low = without A/C.
pin 81: SBSY : IN : Sub code block synchronous signal detection input.
pin 82: GND : - : Ground.
pin 83: CD CONNECT : IN : CD connection check signal input.
pin 84: BUS 0 : I/O: CD IC Data input / output.
pin 85: BUS 1 : I/O: CD IC Data input / output.
pin 86: BUS 2 : I/O: CD IC Data input / output.
pin 87: BUS 3 : I/O: CD IC Data input / output.
pin 88: BUS CLCK : O : Clock pulse output to the CD IC.
pin 89: CCE : O : The chip enable signal output.
pin 90: GS1 TEST : O : Test data output.
pin 91: S STOP : IN : Inside limit signal input from the CD mechanism.
pin 92: CHU SW : IN : CD disc chucking signal input.
pin 93: TR B : IN : Photo sensor signal input from the CD mechanism.
pin 94: TR A : IN : Photo sensor signal input from the CD mechanism.
pin 95: LD CONT : IN : Loading control signal input.
pin 96: LD MUTE : O : Muting signal output to the CD mechanism.
pin 97: NU : - : Not in use.
pin 98: BAND SEL : IN : Band selection input.
pin 99: VDD : - : Positive supply voltage.
pin100: GND : - : Ground.

EXPLODED VIEW • PARTS LIST

Main section

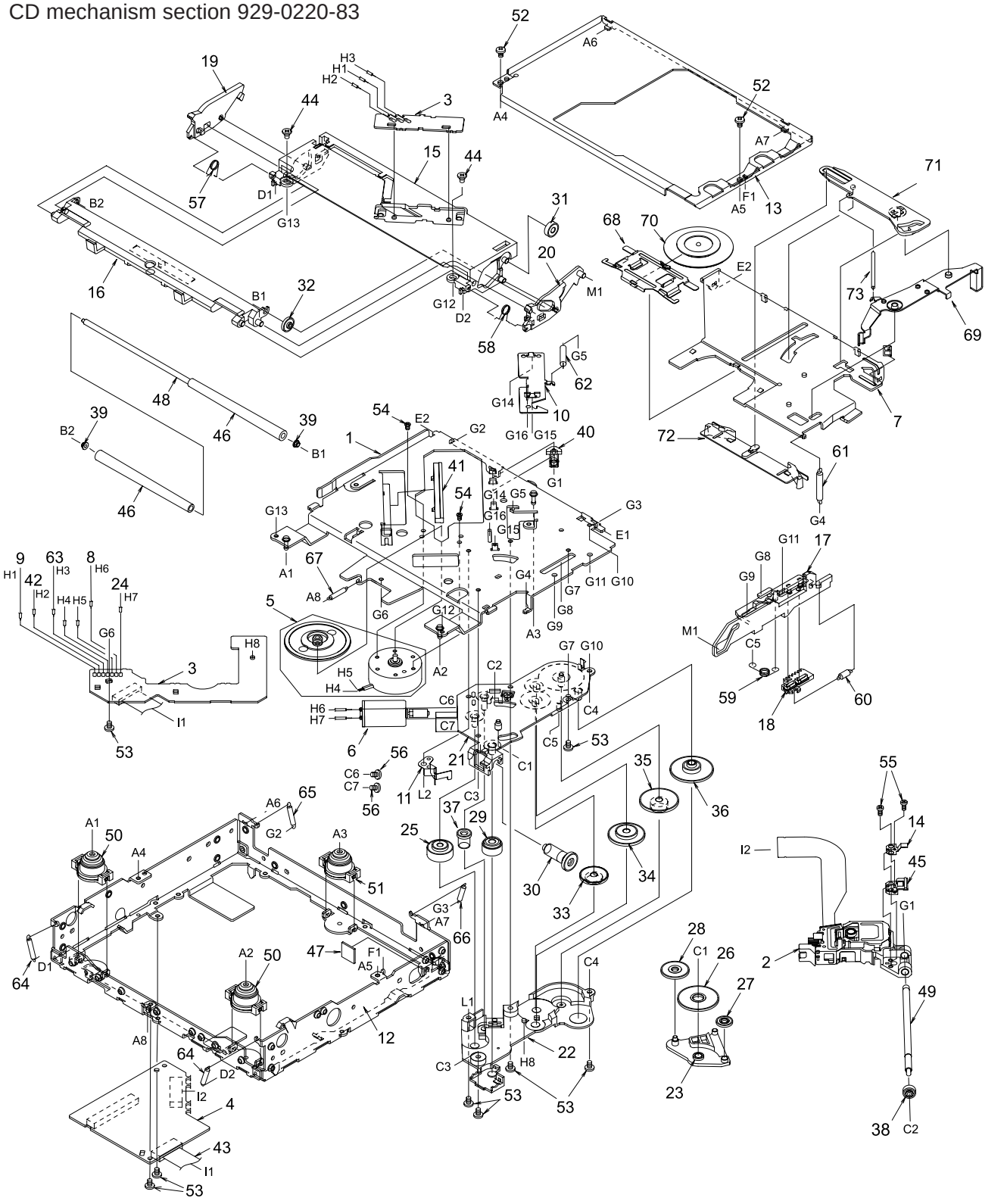
NO.	PART NO.	DESCRIPTION	Q'TY
1	076-0540-14	PLUG(14P)	1
2	074-1191-26	OUTLET SOCKET(26P)	1
3	103-2012-00	TRANSISTOR(2SD2012)	2
4	051-2042-00	IC	1
5	074-1068-11	OUTLET SOCKET	1
6	880-1917E	FM/AM TUNER	1
7	073-0762-90	TERMINAL	2
8	307-0683-05	REAR PLATE	1
9	092-0702-00	ANT-RECEPTACLE	1
10	716-0878-00	IT-SCREW	1
11	714-2606-81	MACHINE SCREW(M2.6x6)	1
12	073-0774-00	TERMINAL	3
13	039-2201-00	MAIN PWB (WITHOUT COMPONENT)	1
14	039-2202-00	SUB PWB (WITHOUT COMPONENT)	1
15	076-0544-10	PLUG(10P)	1
16	076-0544-08	PLUG(8P)	1
17	331-3522-00	OUTLET HOLDER	1
18	074-1013-30	OUTLET SOCKET(12P)	1
19	074-1298-10	OUTLET SOCKET(8P)	1
20	313-1857-00	HEAT SINK	1
21	331-3471-00	SIDE PLATE	1
22	331-3472-00	SIDE PLATE	1
23	331-3467-00	ES-PLATE	1
24	929-0220-83	CD MECHANISM	1
25	331-3466-00	MECH BRKT	1
26	816-2549-01	FLAT WIRE	1

NO.	PART NO.	DESCRIPTION	Q'TY
27	311-1833-10	LOWER CASE	1
28	310-1739-10	UPPER CASE	1
29	716-0878-00	IT-SCREW	2
30	714-2606-81	MACHINE SCREW(M2.6x6)	16
31	714-2612-81	MACHINE SCREW(M2.6x12)	2
32	714-2603-81	MACHINE SCREW(M2.6x3)	2
33	347-5206-00	SHIELD SHEET	1
34	347-6521-00	SHIELD SHEET	1
35	345-8639-00	PROTECTOR	1
36	286-6095-00	SETPLATE	1
37	940-8005-02	ESCUTCHEON ASSY	1
38	380-5544-00	KNOB	1
39	716-0778-00	WAVE SCREW	8
40	373-0995-00	DIAL COVER	1
41	331-3470-00	LCD COVER	1
42	335-6814-00	LCD LEFLECTOR	1
43	379-1247-30	INDICATOR	1
44	335-6804-00	LCD HOLDER	1
45	074-1151-14	OUTLET SOCKET(14P)	1
46	001-7048-96	LED(YEL)	17
47	001-7063-91	LED(YEL)	21
48	013-6311-50	SWITCH	18
49	016-0013-03	ROTARY ENCODER	1
50	345-8662-00	RUBBER SPACER	1
51	039-2203-00	SWITCH PWB (WITHOUT COMPONENT)	1
52	013-6302-51	SWITCH(EJECT)	1


H
30
36
28
E
H
32
24
H'
J
30
H'
20
K
L
M
33
31
G
25
34
26
11
19
9
17
L
30
E
D
J
D
K
21
8
16
18
14
15
12
I
A
5
F
3
10
6
29
N
7
4
M
A
30
G
12
23
2
1
13
F
30
29
O
7
52
12
B
22
30
C
B
46 x14
39 x8
46 x3
47x21
49
N
I
30
43
48 x19
O
51
35
45
C
27
44
50
42
41
40
37
38

PP-2515L

CD mechanism section 929-0220-83



NO.	PART NO.	DESCRIPTION	Q'TY
1	966-0595-25	DRIVE PLATE ASSY	1
2	969-0060-30	PICK UP UNIT	1
3	039-1944-21	LED PWB (WITHOUT COMPONENT)	1
4	039-1945-20	CD PWB (WITHOUT COMPONENT)	1
5	SMA-182-100	MOTOR ASSY(SPINDLE)	1
6	SMA-183-100	MOTOR ASSY(SLED)	1
7	620-1022-24	CLAMPER LINK	1
8	803-4906-60	VINYL COAT WIRE(ORG)	1
9	816-2591-00	LEAD WIRE(YEL)	1

NO.	PART NO.	DESCRIPTION	Q'TY
10	620-1025-22	ID-LOCK PLATE	1
11	620-1026-21	SPRING PLATE	1
12	620-1027-25	LOWER CHASSIS	1
13	620-1028-22	UPPER CHASSIS	1
14	966-0638-20	SH-RACK ASSY	1
15	621-0598-26	UPPER GUIDE	1
16	621-0599-25	ROLLER GUIDE	1
17	621-0600-25	SHIFT LEVER	1
18	621-0601-21	RACK	1
19	621-0602-22	LOCK ARM L	1

NO.	PART NO.	DESCRIPTION	Q'TY
20	621-0603-25	LOCK ARM R	1
21	621-0604-22	GEAR BASE	1
22	621-0605-22	GEAR COVER	1
23	621-0606-21	IDLE CASE	1
24	816-2590-00	VINYL COAT WIRE(GRN)	1
25	621-0608-21	SECOND GEAR	1
26	621-0609-20	BASE GEAR	1
27	621-0610-20	IDLE GEAR A	1
28	621-0611-20	IDLE GEAR B	1
29	621-0612-21	ROLLER GEAR A	1
30	621-0613-20	ROLLER GEAR B	1
31	621-0614-20	ROLLER GEAR C	1
32	621-0615-21	ROLLER GEAR D	1
33	621-0616-20	POWER GEAR A	1
34	621-0617-20	POWER GEAR B	1
35	621-0618-20	POWER GEAR C	1
36	621-0619-20	POWER GEAR D	1
37	621-0620-20	THREAD GEAR A	1
38	621-0621-20	THREAD GEAR B	1
39	621-0622-21	ROLLER SLEEVE	2
40	621-0623-22	LS-HOLDER	1
41	621-0624-22	GUIDE RAIL	1
42	816-2593-00	LEAD WIRE(PUR)	1
43	816-2542-01	FLAT WIRE(10P)	1
44	716-3473-00	SCREW	2
45	621-0709-20	SH-BASE	1
46	621-0629-20	LOADING ROLLER	2

NO.	PART NO.	DESCRIPTION	Q'TY
47	345-8704-20	CUSHION RUBBER	1
48	622-1571-21	ROLLER SHAFT	1
49	624-0018-01	LEAD SCREW	1
50	629-0081-20	DAMPER F	2
51	629-0082-20	DAMPER R	1
52	714-2003-81	MACHINE SCREW	2
53	716-1507-00	SCREW	9
54	716-1733-00	SCREW	2
55	716-3469-00	SCREW	2
56	716-3446-00	SCREW	2
57	750-3465-21	ROLLER SPRING L	1
58	750-3466-20	ROLLER SPRING R	1
59	750-3467-21	SHIFT SPRING	1
60	750-3468-20	RACK SPRING	1
61	750-3469-20	CLAMPER SPRING	1
62	750-3470-20	ID-LOCK SPRING	1
63	816-2592-00	LEAD WIRE(BLU)	1
64	750-3472-21	DR-SPRING F	2
65	750-3473-20	DR-SPRING RA	1
66	750-3474-20	DR-SPRING RB	1
67	750-3475-21	DR-SPRING C	1
68	620-1023-23	CLAMPER PLATE	1
69	620-1024-23	SENSOR ARM	1
70	621-0708-20	CLAMPER RING	1
71	621-0626-21	STOPPER LINK	1
72	621-0627-21	DISC STOPPER	1
73	750-3471-20	SENSOR SPRING	1

■ELECTRICAL PARTS LIST

Note) Several different parts of the same reference number are alternative parts. One of those parts is used in the set.

Main PWB(B1) section

REF No.	PART No.	DESCRIPTION
BL101	880-1917E	FM/AM TUNER
C104	119-0000-05	1/16W 0 ohm JW
C105	166-1511-50	150pF CH
C114	166-1007-50	10pF CH
C116	168-1042-78	16V 0.1uF
C118	168-1022-55	1000pF
C119	182-1073-29	10V100uF
C120	042-0458-93	50V2.2uF
C122	182-1073-29	10V100uF
C123	182-1073-29	10V100uF
C125	182-4763-39	16V47uF
C126	178-1052-78	1uF
C127	168-1532-55	0.015uF
C128	168-3932-78	0.039uF
C129	168-3932-78	0.039μF
C130	166-1201-50	12pF CH
C132	166-2201-50	22pF CH
C133	166-1501-50	15pF CH
C134	168-1022-55	1000pF
C135	168-1042-78	16V 0.1uF
C136	168-1042-78	16V 0.1uF
C137	168-1042-78	16V 0.1uF
C138	168-1042-78	16V 0.1uF
C139	166-5601-50	56pF CH
C201	168-1022-55	1000pF
C202	168-1022-55	1000pF
C203	166-1011-50	100pF CH
C204	166-1011-50	100pF CH
C205	166-1011-50	100pF CH
C206	166-1011-50	100pF CH
C207	168-1042-78	16V 0.1uF

REF No.	PART No.	DESCRIPTION
C208	168-1042-78	16V 0.1uF
C212	166-8097-50	8pF CH
C213	183-4763-39	16V47uF
C214	168-1042-78	16V 0.1uF
C215	183-4763-39	16V47uF
C216	168-1042-78	16V 0.1uF
C217	042-0403-55	16V33uF
C218	042-0403-55	16V33uF
C219	168-1042-78	16V 0.1uF
C301	168-4722-55	4700pF
C302	168-1042-78	16V 0.1uF
C303	182-4763-39	16V47uF
C304	166-1011-50	100pF CH
C305	168-1042-78	16V 0.1uF
C306	184-2273-29	10V220uF
C307	182-1063-39	16V10uF
C308	166-1011-50	100pF CH
C309	183-1066-38	16V10uF NP
C310	183-1066-38	16V10uF NP
C315	182-2263-19	6.3V22uF
C316	182-1053-69	50V1uF
C318	178-1042-78	0.1uF
C319	178-1042-78	0.1uF
C321	182-1053-69	50V1uF
C322	178-4742-78	0.47uF
C323	178-4742-78	0.47uF
C324	168-1222-55	1200pF
C325	182-1053-69	50V1uF
C326	182-1053-69	50V1uF
C327	168-1222-55	1200pF
C328	182-1063-39	16V10uF

REF No.	PART No.	DESCRIPTION
C329	182-1063-39	16V10uF
C330	182-1063-39	16V10uF
C331	182-1063-39	16V10uF
C332	178-1842-78	0.18uF
C333	178-1842-78	0.18uF
C334	178-1842-78	0.18uF
C335	178-1842-78	0.18uF
C336	168-8212-55	820pF
C337	168-8212-55	820pF
C338	168-8212-55	820pF
C339	168-8212-55	820pF
C340	182-1063-39	16V10uF
C341	182-1063-39	16V10uF
C342	168-1832-55	0.018uF
C343	182-1063-39	16V10uF
C344	182-1063-39	16V10uF
C345	182-1063-39	16V10uF
C346	182-1063-39	16V10uF
C405	168-1022-55	1000pF
C406	168-1022-55	1000pF
C407	168-1022-55	1000pF
C408	168-2232-55	0.022uF
C409	182-1063-39	16V10uF
C410	182-1063-39	16V10uF
C411	182-1063-39	16V10uF
C412	182-1063-39	16V10uF
C501	168-2222-55	2200pF
C502	168-2712-55	270pF
C503	168-2222-55	2200pF
C504	168-2712-55	270pF
C505	166-2201-50	22pF CH

REF No.	PART No.	DESCRIPTION
C506	166-2201-50	22pF CH
C507	168-1042-78	16V 0.1uF
C508	166-2201-50	22pF CH
C509	166-2201-50	22pF CH
C510	168-6822-55	6800pF
C511	168-6822-55	6800pF
C512	166-2201-50	22pF CH
C513	166-2201-50	22pF CH
C514	168-1042-78	16V 0.1uF
C515	166-2201-50	22pF CH
C516	166-2201-50	22pF CH
C529	178-1042-78	0.1uF
C530	178-1042-78	0.1uF
C531	178-1842-78	0.18uF
C532	178-1842-78	0.18uF
C533	178-1842-78	0.18uF
C534	178-1842-78	0.18uF
C535	178-8232-78	0.082uF
C536	178-8232-78	0.082uF
C537	166-2201-50	22pF CH
C538	166-2201-50	22pF CH
C539	166-2201-50	22pF CH
C540	166-2201-50	22pF CH
C541	166-2201-50	22pF CH
C542	166-2201-50	22pF CH
C545	178-8222-78	8200pF
C546	178-8222-78	8200pF
C549	178-3932-78	0.039uF
C550	178-3932-78	0.039uF
C553	178-5632-78	0.056uF
C554	178-5632-78	0.056uF
C555	178-6832-78	0.068uF
C556	178-6832-78	0.068uF
C557	178-5632-78	0.056uF
C558	178-6832-78	0.068uF
C559	166-2201-50	22pF CH
C560	166-2201-50	22pF CH
C561	166-2201-50	22pF CH
C562	166-2201-50	22pF CH
C563	178-5632-78	0.056uF
C564	178-6832-78	0.068uF
C565	168-1032-55	0.01uF
C566	168-2232-55	0.022uF
C567	168-1032-55	0.01uF
C568	178-3932-78	0.039uF
C569	178-3932-78	0.039uF
C570	178-3932-78	0.039F
C571	178-3932-78	0.039uF
C572	168-1822-55	1800pF
C573	182-1053-69	50V1uF
C574	182-1063-39	16V10uF
C577	178-1052-78	1uF
C578	178-1052-78	1uF
C579	178-1052-78	1uF
C580	178-1052-78	1uF
C581	168-1822-55	1800pF
C582	183-1053-69	50V1uF
C584	166-2201-50	22pF CH
C585	166-2201-50	22pF CH
C586	166-2201-50	22pF CH
C587	166-2201-50	22pF CH
C599	184-4773-19	6.3V470uF
C601	183-4753-69	50V4.7uF
C602	183-4753-69	50V4.7uF
C701	172-1041-15	0.1uF
C702	042-0447-00	16V2200uF
C703	168-2222-55	2200pF
C704	168-2222-55	2200pF
C705	168-2222-55	2200pF
C706	168-2222-55	2200pF
C707	168-2222-55	2200pF
C708	168-2222-55	2200pF
C709	168-2222-55	2200pF
C710	168-2222-55	2200pF
C711	168-2222-55	2200pF
C712	172-1041-15	0.1uF
C713	182-1063-39	16V10uF
C714	183-6843-69	50V0.68uF

REF No.	PART No.	DESCRIPTION
C802	182-4763-39	16V47uF
C803	182-1063-39	16V10uF
C804	182-4763-19	6.3V47uF
C805	182-4763-19	6.3V47uF
C806	182-1063-39	16V10uF
C807	182-1063-39	16V10uF
C901	168-1042-78	16V 0.1uF
C902	182-1063-39	16V10uF
C903	183-4753-69	50V4.7uF
C904	183-1053-69	50V1uF
C905	166-4711-50	470pF CH
C906	166-4711-50	470pF CH
C907	168-1042-78	16V 0.1uF
C910	166-1021-50	1000pF CH
C911	182-1073-39	16V100uF
CCT205	050-0140-54	1/32W 1k ohmx4J
CCT206	050-0140-54	1/32W 1k ohmx4J
CCT207	050-0140-54	1/32W 1k ohmx4J
CCT209	050-0140-54	1/32W 1k ohmx4J
CCT210	050-0140-54	1/32W 1k ohmx4J
D401	001-0422-38	MTZJ36
D402	001-0589-91	1SS145
D403	001-0589-91	1SS145
D404	001-0347-44	MA4082M
D404	001-0346-45	MTZJ8.2C
D404	001-0401-44	HZS9 A2
D601	001-0516-90	MA111
D701	001-2015-00	RL253
D702	001-0466-90	S5688B
D703	001-0347-34	MA4062L
D703	001-0346-34	MTZJ6.2A
D703	001-0401-34	HZS6 C1
D704	001-0466-90	S5688B
D802	001-0347-48	MA4091H
D802	001-0346-49	MTZJ10A
D802	001-0401-48	HZS9 C2
D803	001-0516-90	MA111
D804	001-0504-31	HZS6 A2L
D805	001-0516-90	MA111
D806	001-0504-31	HZS6 A2L
D808	001-0504-45	HZS9B1L
D902	001-0504-48	HZS9C2L
D903	001-0516-90	MA111
IC201	052-1173-20	uPD178078GF-568-3BA
IC301	051-3034-90	NJM4558V
IC302	051-5027-00	LC75412WH
IC501	051-3019-90	NJM2060V
IC503	051-3019-90	NJM2060V
IC504	051-3019-90	NJM2060V
IC505	051-3019-90	NJM2060V
IC506	051-2042-00	TA8275H
J201	074-1191-26	26P
J701	074-1068-11	NS10+6
L104	010-2003-04	COIL
L202	010-6009-64	2.2uH
L701	009-0670-01	CHOKE
L701	009-0670-81	CHOKE
P701	076-0540-14	14P
Q104	192-2458-51	2SC2458Y.GR.BL
Q105	192-2458-51	2SC2458Y.GR.BL
Q106	190-1150-00	2SA1150
Q107	125-2004-92	RN1402
Q107	125-2005-91	UN2211TX
Q107	125-2020-92	DTC114EK
Q107	125-2031-92	MUN2211
Q108	190-1150-00	2SA1150
Q201	125-2004-92	RN1402
Q201	125-2005-91	UN2211TX
Q201	125-2020-92	DTC114EK
Q201	125-2031-92	MUN2211
Q301	125-2004-92	RN1402
Q301	125-2005-91	UN2211TX
Q301	125-2020-92	DTC114EK
Q301	125-2031-92	MUN2211
Q302	125-2004-92	RN1402
Q302	125-2005-91	UN2211TX
Q302	125-2020-92	DTC114EK

REF No.	PART No.	DESCRIPTION
Q302	125-2031-92	MUN2211
Q303	191-0709-00	2SB709A-Q.R.S
Q303	190-1037-00	2SA1037
Q303	190-1162-00	2SA1162
Q401	192-2712-00	2SC2712
Q401	192-2412-00	2SC2412
Q401	193-0601-00	2SD601
Q402	125-9006-90	IMX1
Q402	125-9007-90	HN1C01F
Q403	125-2004-92	RN1402
Q403	125-2005-91	UN2211TX
Q403	125-2020-92	DTC114EK
Q403	125-2031-92	MUN2211
Q404	125-0002-92	RN2402
Q404	125-0001-91	UN2111TX
Q404	125-0014-92	DTA114EK
Q501	125-4001-90	XN1504
Q502	125-4001-90	XN1504
Q503	125-0006-90	UN2110
Q504	125-0002-92	RN2402
Q504	125-0001-91	UN2111TX
Q504	125-0014-92	DTA114EK
Q505	125-0002-92	RN2402
Q505	125-0001-91	UN2111TX
Q505	125-0014-92	DTA114EK
Q506	125-0006-90	UN2110
Q701	192-2712-00	2SC2712
Q701	192-2412-00	2SC2412
Q701	193-0601-00	2SD601
Q801	193-2118-00	2SD2118
Q802	125-2004-92	RN1402
Q802	125-2005-91	UN2211TX
Q802	125-2020-92	DTC114EK
Q802	125-2031-92	MUN2211
Q803	190-1150-00	2SA1150
Q804	125-2004-92	RN1402
Q804	125-2005-91	UN2211TX
Q804	125-2020-92	DTC114EK
Q804	125-2031-92	MUN2211
Q805	125-0002-92	RN2402
Q805	125-0001-91	UN2111TX
Q805	125-0014-92	DTA114EK
Q806	193-1858-00	2SD1858
Q808	125-2004-92	RN1402
Q808	125-2005-91	UN2211TX
Q808	125-2020-92	DTC114EK
Q808	125-2031-92	MUN2211
Q809	191-0709-00	2SB709A-Q.R.S
Q809	190-1037-00	2SA1037
Q809	190-1162-00	2SA1162
Q810	191-1205-60	2SB1205RST
Q811	193-2118-00	2SD2118
Q812	125-9003-92	IMD3
Q812	125-9002-92	RN4602
Q813	103-2012-00	2SD2012
Q903	103-2012-00	2SD2012
Q904	125-2004-92	RN1402
Q904	125-2005-91	UN2211TX
Q904	125-2020-92	DTC114EK
Q904	125-2031-92	MUN2211
Q905	190-1298-00	2SA1298
Q906	125-2004-92	RN1402
Q906	125-2005-91	UN2211TX
Q906	125-2020-92	DTC114EK
Q906	125-2031-92	MUN2211
Q907	125-2004-92	RN1402
Q907	125-2005-91	UN2211TX
Q907	125-2020-92	DTC114EK
Q907	125-2031-92	MUN2211
R111	119-2221-15	1/16W 2.2k ohm
R112	119-4721-15	1/16W 4.7k ohm
R113	119-1021-15	1/16W 1k ohm
R114	111-4701-98	1/4W 47 ohm
R115	119-2221-15	1/16W 2.2k ohm
R116	111-1501-98	1/4W 15 ohm
R117	119-1021-15	1/16W 1k ohm
R118	119-4741-15	1/16W 470k ohm
R119	111-1001-98	1/4W 10 ohm

REF No.	PART No.	DESCRIPTION
R120	111-2221-98	1/4W 2.2k ohm
R121	111-1031-98	1/4W 10k ohm
R122	119-1021-15	1/16W 1k ohm
R123	111-1031-98	1/4W 10k ohm
R124	111-2221-98	1/4W 2.2k ohm
R126	119-8201-15	1/16W 82 ohm
R199	119-0000-05	1/16W 0 ohm JW
R201	119-1021-15	1/16W 1k ohm
R202	119-1021-15	1/16W 1k ohm
R203	119-1031-15	1/16W 10k ohm
R204	119-0000-05	1/16W 0 ohm JW
R205	119-1031-15	1/16W 10k ohm
R206	119-4731-15	1/16W 47k ohm
R207	119-4731-15	1/16W 47k ohm
R208	119-4731-15	1/16W 47k ohm
R209	119-1041-15	1/16W 100k ohm
R210	119-1041-15	1/16W 100k ohm
R212	119-1031-15	1/16W 10k ohm
R214	119-2231-15	1/16W 22k ohm
R215	119-1031-15	1/16W 10k ohm
R221	119-1021-15	1/16W 1k ohm
R222	119-4731-15	1/16W 47k ohm
R223	119-1031-15	1/16W 10k ohm
R224	119-1021-15	1/16W 1k ohm
R225	119-1031-15	1/16W 10k ohm
R226	119-1021-15	1/16W 1k ohm
R227	119-4731-15	1/16W 47k ohm
R228	119-3311-15	1/16W 330 ohm
R229	119-3311-15	1/16W 330 ohm
R230	119-1021-15	1/16W 1k ohm
R232	119-4731-15	1/16W 47k ohm
R234	119-1031-15	1/16W 10k ohm
R236	119-4731-15	1/16W 47k ohm
R239	119-1031-15	1/16W 10k ohm
R240	119-1021-15	1/16W 1k ohm
R241	119-1021-15	1/16W 1k ohm
R242	119-1021-15	1/16W 1k ohm
R245	119-1031-15	1/16W 10k ohm
R246	119-1031-15	1/16W 10k ohm
R248	119-1021-15	1/16W 1k ohm
R249	119-0000-05	1/16W 0 ohm JW
R250	119-1021-15	1/16W 1k ohm
R251	119-0000-05	1/16W 0 ohm JW
R252	119-0000-05	1/16W 0 ohm JW
R253	119-1031-15	1/16W 10k ohm
R260	119-1031-15	1/16W 10k ohm
R301	119-1021-15	1/16W 1k ohm
R302	119-1021-15	1/16W 1k ohm
R303	119-4731-15	1/16W 47k ohm
R304	119-4721-15	1/16W 4.7k ohm
R305	119-1021-15	1/16W 1k ohm
R306	119-2231-15	1/16W 22k ohm
R307	119-0000-05	1/16W 0 ohm JW
R308	119-4731-15	1/16W 47k ohm
R309	119-4731-15	1/16W 47k ohm
R310	119-4731-15	1/16W 47k ohm
R311	119-4731-15	1/16W 47k ohm
R312	119-1041-15	1/16W 100k ohm
R313	119-1041-15	1/16W 100k ohm
R314	119-3011-15	1/16W 300 ohm
R334	119-1821-15	1/16W 1.8k ohm
R335	119-1821-15	1/16W 1.8k ohm
R336	119-3931-15	1/16W 39k ohm
R337	119-3931-15	1/16W 39k ohm
R342	119-4721-15	1/16W 4.7k ohm
R343	119-4721-15	1/16W 4.7k ohm
R346	119-4721-15	1/16W 4.7k ohm
R347	119-4721-15	1/16W 4.7k ohm
R360	119-0000-05	1/16W 0 ohm JW
R405	119-1021-15	1/16W 1k ohm

REF No.	PART No.	DESCRIPTION
R406	119-5621-15	1/16W 5.6k ohm
R407	119-5621-15	1/16W 5.6k ohm
R408	119-5631-15	1/16W 56k ohm
R409	119-5631-15	1/16W 56k ohm
R410	119-1031-15	1/16W 10k ohm
R411	119-1031-15	1/16W 10k ohm
R412	119-5631-15	1/16W 56k ohm
R413	119-1031-15	1/16W 10k ohm
R414	119-3011-15	1/16W 300 ohm
R415	119-3011-15	1/16W 300 ohm
R416	119-4731-15	1/16W 47k ohm
R417	119-2231-15	1/16W 22k ohm
R422	119-4731-15	1/16W 47k ohm
R430	032-0106-69	1/10W 39k ohm D
R431	032-0106-69	1/10W 39k ohm D
R432	032-0106-69	1/10W 39k ohm D
R433	032-0106-69	1/10W 39k ohm D
R501	119-3331-15	1/16W 33k ohm
R502	119-3331-15	1/16W 33k ohm
R503	119-3331-15	1/16W 33k ohm
R504	119-3331-15	1/16W 33k ohm
R505	119-1831-15	1/16W 18k ohm
R506	119-2731-15	1/16W 27k ohm
R507	119-1831-15	1/16W 18k ohm
R508	119-2731-15	1/16W 27k ohm
R509	119-1831-15	1/16W 18k ohm
R510	119-1531-15	1/16W 15k ohm
R511	119-1831-15	1/16W 18k ohm
R512	119-1531-15	1/16W 15k ohm
R513	119-4721-15	1/16W 4.7k ohm
R514	119-1031-15	1/16W 10k ohm
R515	119-1031-15	1/16W 10k ohm
R516	119-4721-15	1/16W 4.7k ohm
R517	119-2721-15	1/16W 2.7k ohm
R518	119-4721-15	1/16W 4.7k ohm
R519	119-4721-15	1/16W 4.7k ohm
R520	119-2721-15	1/16W 2.7k ohm
R521	119-4721-15	1/16W 4.7k ohm
R522	119-4721-15	1/16W 4.7k ohm
R523	119-1031-15	1/16W 10k ohm
R524	119-1031-15	1/16W 10k ohm
R525	119-2221-15	1/16W 2.2k ohm
R528	119-2221-15	1/16W 2.2k ohm
R529	119-2221-15	1/16W 2.2k ohm
R532	119-2221-15	1/16W 2.2k ohm
R549	119-3921-15	1/16W 3.9k ohm
R550	119-3921-15	1/16W 3.9k ohm
R551	119-3921-15	1/16W 3.9k ohm
R552	119-3921-15	1/16W 3.9k ohm
R553	119-1511-15	1/16W 150 ohm
R554	119-1511-15	1/16W 150 ohm
R555	119-1511-15	1/16W 150 ohm
R556	119-1511-15	1/16W 150 ohm
R557	119-1541-15	1/16W 150k ohm
R558	119-1541-15	1/16W 150k ohm
R559	119-1541-15	1/16W 150k ohm
R560	119-1541-15	1/16W 150k ohm
R561	119-1541-15	1/16W 150k ohm
R562	119-1541-15	1/16W 150k ohm
R565	119-1511-15	1/16W 150 ohm
R566	119-1511-15	1/16W 150 ohm
R569	119-1521-15	1/16W 1.5k ohm
R570	119-1521-15	1/16W 1.5k ohm
R573	119-4731-15	1/16W 47k ohm
R574	119-4731-15	1/16W 47k ohm
R575	119-8221-15	1/16W 8.2k ohm
R576	119-8221-15	1/16W 8.2k ohm
R577	119-1031-15	1/16W 10k ohm
R578	119-1031-15	1/16W 10k ohm
R579	119-5131-15	1/16W 51k ohm

REF No.	PART No.	DESCRIPTION
R580	119-5131-15	1/16W 51k ohm
R581	119-5131-15	1/16W 51k ohm
R582	119-5131-15	1/16W 51k ohm
R583	119-1031-15	1/16W 10k ohm
R584	119-1031-15	1/16W 10k ohm
R585	119-1831-15	1/16W 18k ohm
R586	119-8221-15	1/16W 8.2k ohm
R587	119-8221-15	1/16W 8.2k ohm
R588	119-4731-15	1/16W 47k ohm
R589	119-4731-15	1/16W 47k ohm
R590	119-1031-15	1/16W 10k ohm
R591	119-1031-15	1/16W 10k ohm
R592	119-1031-15	1/16W 10k ohm
R593	119-1031-15	1/16W 10k ohm
R594	119-1031-15	1/16W 10k ohm
R595	119-1031-15	1/16W 10k ohm
R596	119-1031-15	1/16W 10k ohm
R597	119-1031-15	1/16W 10k ohm
R598	119-1031-15	1/16W 10k ohm
R599	119-4721-15	1/16W 4.7k ohm
R600	119-1021-15	1/16W 1k ohm
R601	119-1021-15	1/16W 1k ohm
R602	119-2241-15	1/16W 220k ohm
R603	119-2241-15	1/16W 220k ohm
R604	119-1231-15	1/16W 12k ohm
R605	119-1231-15	1/16W 12k ohm
R606	119-2231-15	1/16W 22k ohm
R607	119-2231-15	1/16W 22k ohm
R612	119-1021-15	1/16W 1k ohm
R613	119-1021-15	1/16W 1k ohm
R615	119-1031-15	1/16W 10k ohm
R616	119-1031-15	1/16W 10k ohm
R617	119-4721-15	1/16W 4.7k ohm
R618	119-4721-15	1/16W 4.7k ohm
R619	119-4721-15	1/16W 4.7k ohm
R701	119-1031-15	1/16W 10k ohm
R702	119-5611-15	1/16W 560 ohm
R703	111-1531-98	1/4W 15k ohm
R704	114-2291-11	1W 2.2 ohm
R705	119-0000-05	1/16W 0 ohm JW
R803	111-4711-98	1/4W 470 ohm
R804	111-1021-98	1/4W 1k ohm
R805	119-2231-15	1/16W 22k ohm
R806	119-4731-15	1/16W 47k ohm
R807	119-1531-15	1/16W 15k ohm
R810	111-1221-98	1/4W 1.2k ohm
R811	111-4721-98	1/4W 4.7k ohm
R812	111-5691-98	1/4W 5.6 ohm
R813	111-5691-98	1/4W 5.6 ohm
R814	111-2211-98	1/4W 220 ohm
R815	119-1041-15	1/16W 100k ohm
R818	111-3911-98	1/4W 390 ohm
R819	119-1041-15	1/16W 100k ohm
R822	111-2211-98	1/4W 220 ohm
R833	111-3911-98	1/4W 390 ohm
R901	119-1031-15	1/16W 10k ohm
R902	119-1021-15	1/16W 1k ohm
R903	119-3931-15	1/16W 39k ohm
R904	119-3321-15	1/16W 3.3k ohm
R905	119-3321-15	1/16W 3.3k ohm
R906	119-4731-15	1/16W 47k ohm
R907	119-1841-15	1/16W 180k ohm
R908	119-4721-15	1/16W 4.7k ohm
R910	119-1031-15	1/16W 10k ohm
SUP101	060-0122-10	DSP-201M-S00B
TC201	004-1580-02	11pF
TM101	073-0762-90	TERMINAL
TM801	073-0762-90	TERMINAL
VR102	012-5203-56	10kΩ
X201	061-3055-00	4.5MHz

Switch PWB(B2) section

REF No.	PART No.	DESCRIPTION
C1101	166-8211-50	820pF
C1102	168-4732-78	0.047uF
C1103	168-4732-78	0.047uF
C1104	168-1042-78	16V 0.1uF
C1105	042-0416-59	10V33uF

REF No.	PART No.	DESCRIPTION
C1106	166-2201-50	22pF CH
C1107	166-2201-50	22pF CH
C1109	166-1011-50	100pF CH
D1100	001-7048-96	RAY1112H-75M
D1101	001-7048-96	RAY1112H-75M

REF No.	PART No.	DESCRIPTION
D1102	001-7048-96	RAY1112H-75M
D1103	001-7048-96	RAY1112H-75M
D1104	001-7048-96	RAY1112H-75M
D1105	001-7048-96	RAY1112H-75M
D1106	001-7048-96	RAY1112H-75M

REF No.	PART No.	DESCRIPTION
D1107	001-7048-96	RAY1112H-75M
D1108	001-7048-96	RAY1112H-75M
D1109	001-7048-96	RAY1112H-75M
D1110	001-7048-96	RAY1112H-75M
D1111	001-7048-96	RAY1112H-75M
D1112	001-7048-96	RAY1112H-75M
D1113	001-7048-96	RAY1112H-75M
D1114	001-7048-96	RAY1112H-75M
D1115	001-7048-96	RAY1112H-75M
D1116	001-7048-96	RAY1112H-75M
D1117	001-7063-91	RAY1102W
D1118	001-7063-91	RAY1102W
D1119	001-7063-91	RAY1102W
D1120	001-7063-91	RAY1102W
D1121	001-7063-91	RAY1102W
D1122	001-7063-91	RAY1102W
D1123	001-7063-91	RAY1102W
D1124	001-7063-91	RAY1102W
D1125	001-7063-91	RAY1102W
D1126	001-7063-91	RAY1102W
D1127	001-7063-91	RAY1102W
D1128	001-7063-91	RAY1102W
D1129	001-7063-91	RAY1102W
D1130	001-7063-91	RAY1102W
D1131	001-7063-91	RAY1102W
D1132	001-7063-91	RAY1102W
D1133	001-7063-91	RAY1102W
D1134	001-7063-91	RAY1102W

REF No.	PART No.	DESCRIPTION
D1135	001-7063-91	RAY1102W
D1136	001-7063-91	RAY1102W
D1137	001-7063-91	RAY1102W
D1145	001-0516-90	MA111
D1146	001-0516-90	MA111
D1147	001-0516-90	MA111
D1148	001-0516-90	MA111
D1149	001-0516-90	MA111
D1160	001-0529-44	MA8082-M
D1161	001-0529-44	MA8082-M
D1162	001-0529-44	MA8082-M
D1163	001-0529-44	MA8082-M
D1164	001-0529-44	MA8082-M
D1165	001-0529-44	MA8082-M
D1166	001-0529-44	MA8082-M
D1167	001-0529-44	MA8082-M
D1168	001-0529-44	MA8082-M
IC1101	051-6064-00	LC75883W
LCD101	379-1247-30	LCD
P1101	074-1151-14	14P
R1101	119-6831-15	1/16W 68k ohm
R1102	119-8211-15	1/16W 820 ohm
R1103	119-8211-15	1/16W 820 ohm
R1104	119-8211-15	1/16W 820 ohm
R1105	119-8211-15	1/16W 820 ohm
R1106	119-8211-15	1/16W 820 ohm
R1107	119-8211-15	1/16W 820 ohm
R1108	119-8211-15	1/16W 820 ohm

REF No.	PART No.	DESCRIPTION
R1109	116-5611-15	1/8W 560 ohm
R1110	116-5611-15	1/8W 560 ohm
R1111	116-5611-15	1/8W 560 ohm
R1112	116-5611-15	1/8W 560 ohm
R1113	116-5611-15	1/8W 560 ohm
R1114	116-5611-15	1/8W 560 ohm
R1115	116-5611-15	1/8W 560 ohm
R1116	116-5611-15	1/8W 560 ohm
S1101	013-6311-50	SWITCH
S1102	013-6311-50	SWITCH
S1103	013-6311-50	SWITCH
S1104	013-6311-50	SWITCH
S1105	013-6311-50	SWITCH
S1106	013-6311-50	SWITCH
S1107	013-6311-50	SWITCH
S1108	013-6311-50	SWITCH
S1109	013-6311-50	SWITCH
S1110	013-6311-50	SWITCH
S1111	013-6311-50	SWITCH
S1112	013-6311-50	SWITCH
S1113	013-6311-50	SWITCH
S1114	013-6311-50	SWITCH
S1115	013-6311-50	SWITCH
S1116	013-6311-50	SWITCH
S1117	013-6311-50	SWITCH
S1118	013-6311-50	SWITCH
S1119	013-6302-51	SKQMAL
VR1101	016-0013-03	ROTARY ENCODER

Sub PWB(B3) section

REF No.	PART No.	DESCRIPTION
J1001	074-1013-30	12P
J1002	074-1298-10	8P

REF No.	PART No.	DESCRIPTION
P1001	076-0544-10	10P
P1002	076-0544-08	8P

CD PWB(B4) section:CD mechanism

REF No.	PART No.	DESCRIPTION
C101	168-1042-78	0.1uF
C102	045-4701-50	47pF
C103	046-4722-58	4700pF
C104	168-1042-78	0.1uF
C105	046-1532-78	0.015uF
C106	046-1032-78	0.01uF
C107	046-1032-78	0.01uF
C108	046-4722-58	4700pF
C109	046-1522-58	1500pF
C110	046-3332-78	0.033uF
C111	168-1042-78	0.1uF
C112	046-3332-78	0.033uF
C113	168-1042-78	0.1uF
C114	168-1042-78	0.1uF
C115	046-4712-58	470pF
C116	046-4712-58	470pF
C117	043-0533-50	0.047uF
C118	043-0533-50	0.047uF
C119	045-2701-50	27pF
C120	045-1801-50	18pF
C121	163-1063-35	16V10uF
C122	178-1052-78	1uF
C123	046-1032-78	0.01uF
C124	163-1073-05	4V100uF
C125	168-1042-78	0.1uF
C126	168-1042-78	0.1uF
C129	178-1052-78	1uF
C201	163-3363-05	4V33uF
C202	168-1042-78	0.1uF
C203	178-1052-78	1uF
C204	163-1073-05	4V100uF
C205	163-3363-05	4V33uF
C206	168-1042-78	0.1uF

REF No.	PART No.	DESCRIPTION
C207	043-0533-50	0.047uF
C208	046-6822-58	6800pF
C209	168-1042-78	0.1uF
C210	043-0533-50	0.047uF
C211	168-1042-78	0.1uF
C212	168-1042-78	0.1uF
C213	045-5096-50	5pF
C214	045-5601-50	56pF
C215	043-0533-50	0.047uF
C216	178-1052-78	1uF
C217	045-1011-50	100pF
C301	163-1073-35	16V100uF
C302	168-1042-78	0.1uF
C303	043-0533-50	0.047uF
D201	001-0516-90	MA111
IC101	051-6376-00	TC94A14FA
IC102	051-3279-90	BA033LBSG
IC201	051-5710-90	TA2157F
IC301	051-6049-08	BA5983FP-E2
J101	074-1228-76	26P
J201	074-1138-65	15P
J301	074-1138-60	10P
L101	010-2285-57	BLM21B102SPT
L102	010-2285-57	BLM21B102SPT
L103	010-2285-57	BLM21B102SPT
L104	010-2285-57	BLM21B102SPT
L105	010-2285-57	BLM21B102SPT
L401	010-3050-93	10μH
Q201	131-1188-50	2SB1188
R102	033-5621-15	1/16W 5.6k ohm
R104	033-4731-15	1/16W 47k ohm
R105	033-1041-15	1/16W 100k ohm
R108	033-1531-15	1/16W 15k ohm

REF No.	PART No.	DESCRIPTION
R109	033-1031-15	1/16W 10k ohm
R110	033-1051-15	1/16W 1M ohm
R111	033-3321-15	1/16W 3.3k ohm
R114	033-2211-15	1/16W 220 ohm
R115	033-2211-15	1/16W 220 ohm
R116	033-1031-15	1/16W 10k ohm
R117	033-1021-15	1/16W 1k ohm
R131	033-4711-15	1/16W 470 ohm
R132	033-2211-15	1/16W 220 ohm
R201	117-2201-15	1/10W 22 ohm
R202	117-2201-15	1/10W 22 ohm
R203	033-1041-15	1/16W 100k ohm
R204	033-1041-15	1/16W 100k ohm
R205	033-1041-15	1/16W 100k ohm
R206	033-1041-15	1/16W 100k ohm
R207	033-1041-15	1/16W 100k ohm
R208	033-8231-15	1/16W 82k ohm
R209	033-6811-15	1/16W 680 ohm
R210	033-6831-15	1/16W 68k ohm
R211	033-1831-15	1/16W 18k ohm
R212	033-2721-15	1/16W 2.7k ohm
R213	033-1011-15	1/16W 100 ohm
R214	033-1021-15	1/16W 1k ohm
R215	033-1031-15	1/16W 10k ohm
R217	033-1041-15	1/16W 100k ohm
R218	033-2211-15	1/16W 220 ohm
R301	117-6811-15	1/16W 680 ohm
R304	033-3921-15	1/16W 3.9k ohm
R305	033-3921-15	1/16W 3.9k ohm
R306	033-1041-15	1/16W 100k ohm
R307	033-2211-15	1/16W 220 ohm
X102	060-1528-90	16.934M

LED PWB(B5) section:CD mechanism

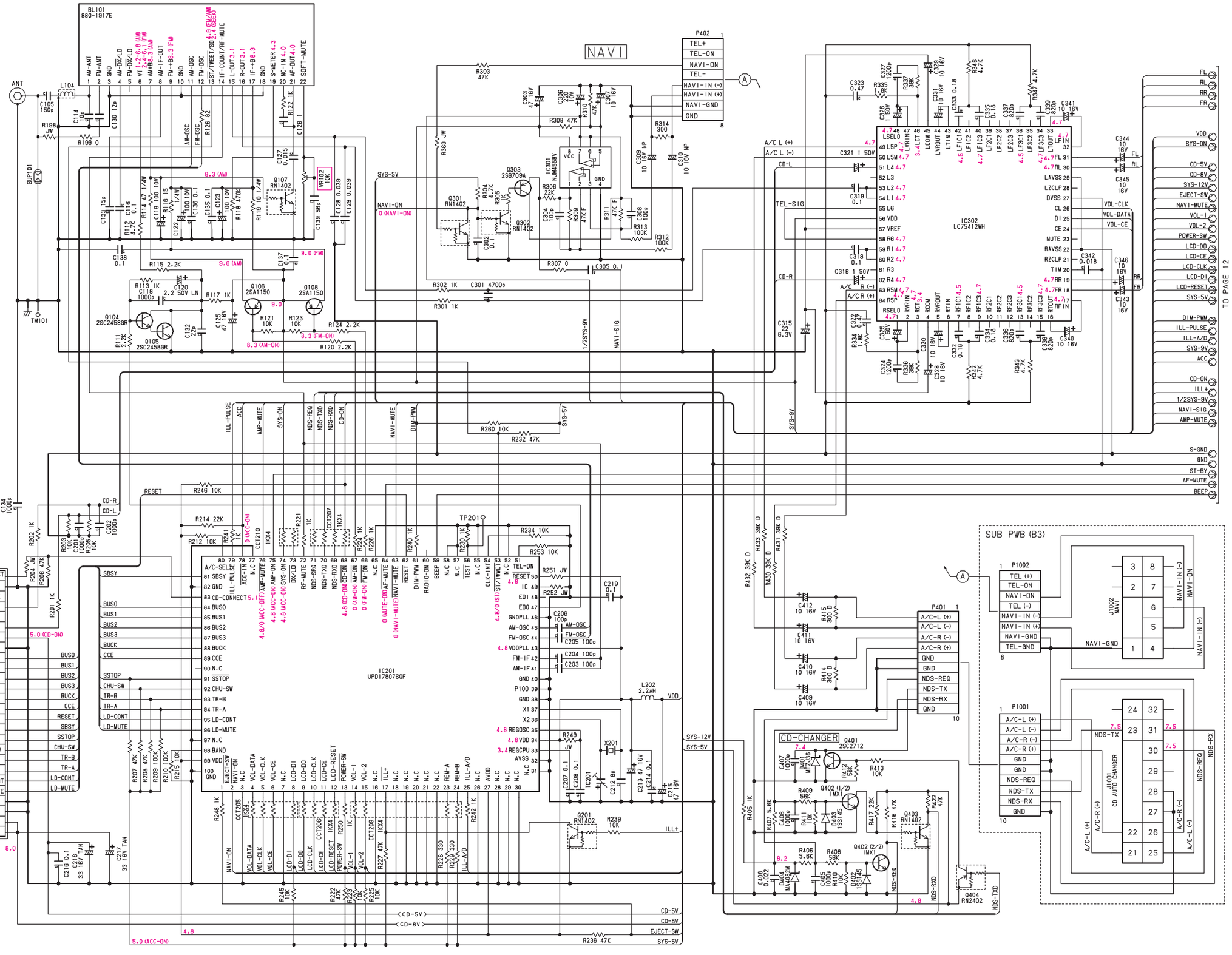
REF No.	PART No.	DESCRIPTION
D1	001-7058-90	AN1105W-RR
D2	001-7058-90	AN1105W-RR
J1	074-1138-60	10P

REF No.	PART No.	DESCRIPTION
Q1	060-4015-90	PS1192H
Q2	060-4015-90	PS1192H

REF No.	PART No.	DESCRIPTION
S1	013-7414-50	CHUCKING
S2	013-7413-50	LIMIT

CIRCUIT DIAGRAM

Main PWB(B1) 1/2 & Sub PWB(B3) section



A	FRONT LEFT SP(+)
B	FRONT RIGHT SP(+)
C	ILLUMINATION(+)
D	ACC
E	FRONT LEFT SP(-)
F	FRONT RIGHT SP(-)
G	ANT-ON SIGNAL
H	BACK UP
I	ILLUMINATION(-)
J	GND

K	NC
L	REAR RIGHT SP(+)
M	GND
N	REAR LEFT SP(-)
O	REAR LEFT SP(+)
P	REAR RIGHT SP(-)

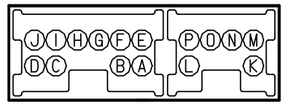
TO PAGE 11

TO P1101 OF SWITCH PWB (PAGE 14)

PRINTED WIRING BOARD

Main PWB(B1) & Sub PWB(B3) section

A	FRONT LEFT SP(+)
B	FRONT RIGHT SP(+)
C	ILLUMINATION(+)
D	ACC
E	FRONT LEFT SP(-)
F	FRONT RIGHT SP(-)
G	ANT-ON SIGNAL
H	BACK UP
I	ILLUMINATION(-)
J	GND



K	NC
L	REAR RIGHT SP(+)
M	GND
N	REAR LEFT SP(-)
O	REAR LEFT SP(+)
P	REAR RIGHT SP(-)

1	NAVI-GND
2	NC
3	NC
4	NAVI-ON
5	NAVI-IN(-)
6	NAVI-IN(+)
7	NC
8	NC

21	A/C L(+)
22	A/C R(+)
23	NDS-TX
24	NC
25	A/C L(-)
26	A/C R(-)
27	GND
28	GND
29	NC
30	NDS-REQ
31	NDS-RX
32	NC

VIEW AT PARTS SIDE

VIEW AT PARTS SIDE

ANTENNA

SUB PWB (B3)

MAIN PWB (B1)

MARKS ● AND MARKS GND ARE ON THE GROUND OF THE DIP LAYER.

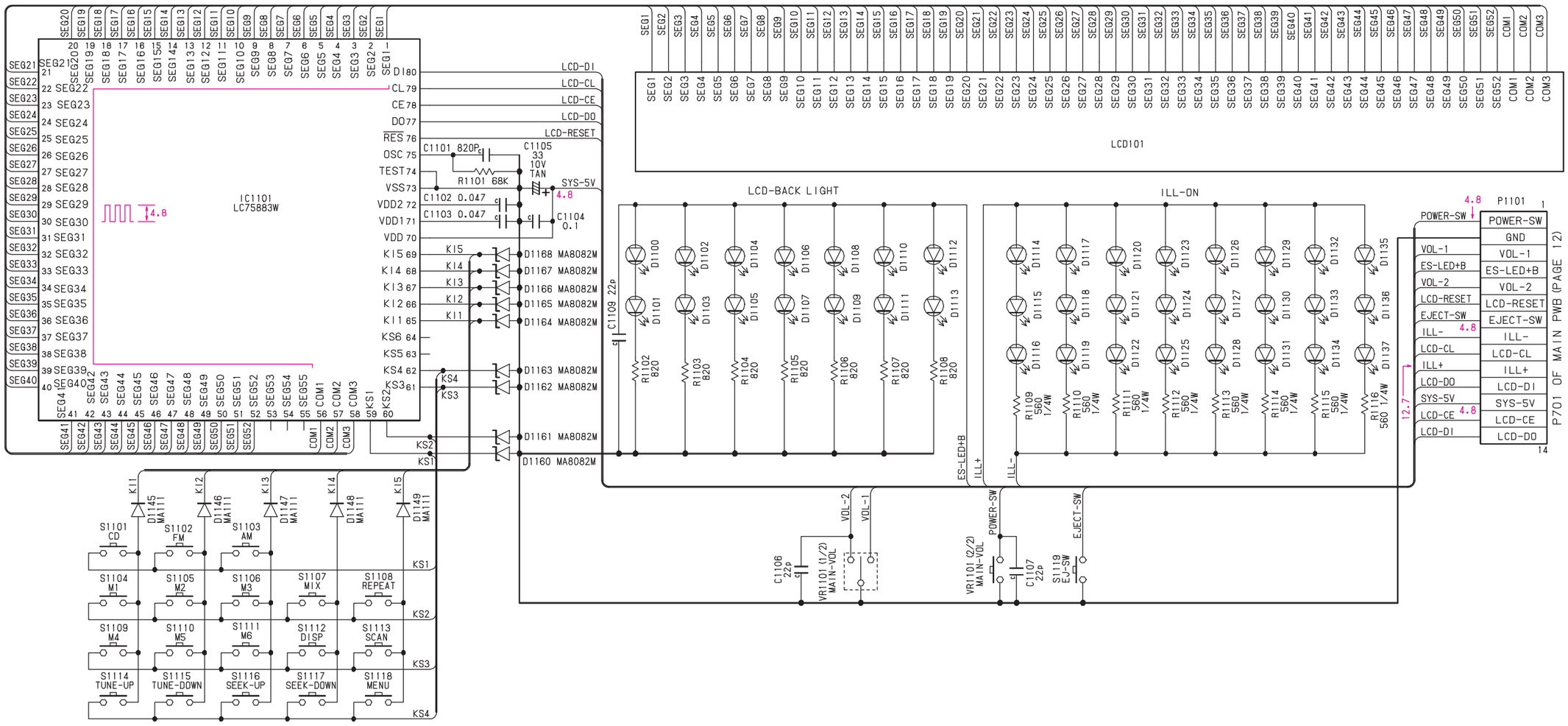
TO CD MECHANISM

P1101 OF SWITCH PWB (PAGE 15)

IC	Q
506	
	501 502
	701
505	813
	402
	302
504	301 812
503	303 404 811
	401
301	403
	809 808
501	503
	810 506 806
302	505 504 801
	106
201	108 105 805
	104 804 803
	907 903
	107 802
	201 904
	905
	906

CIRCUIT DIAGRAM

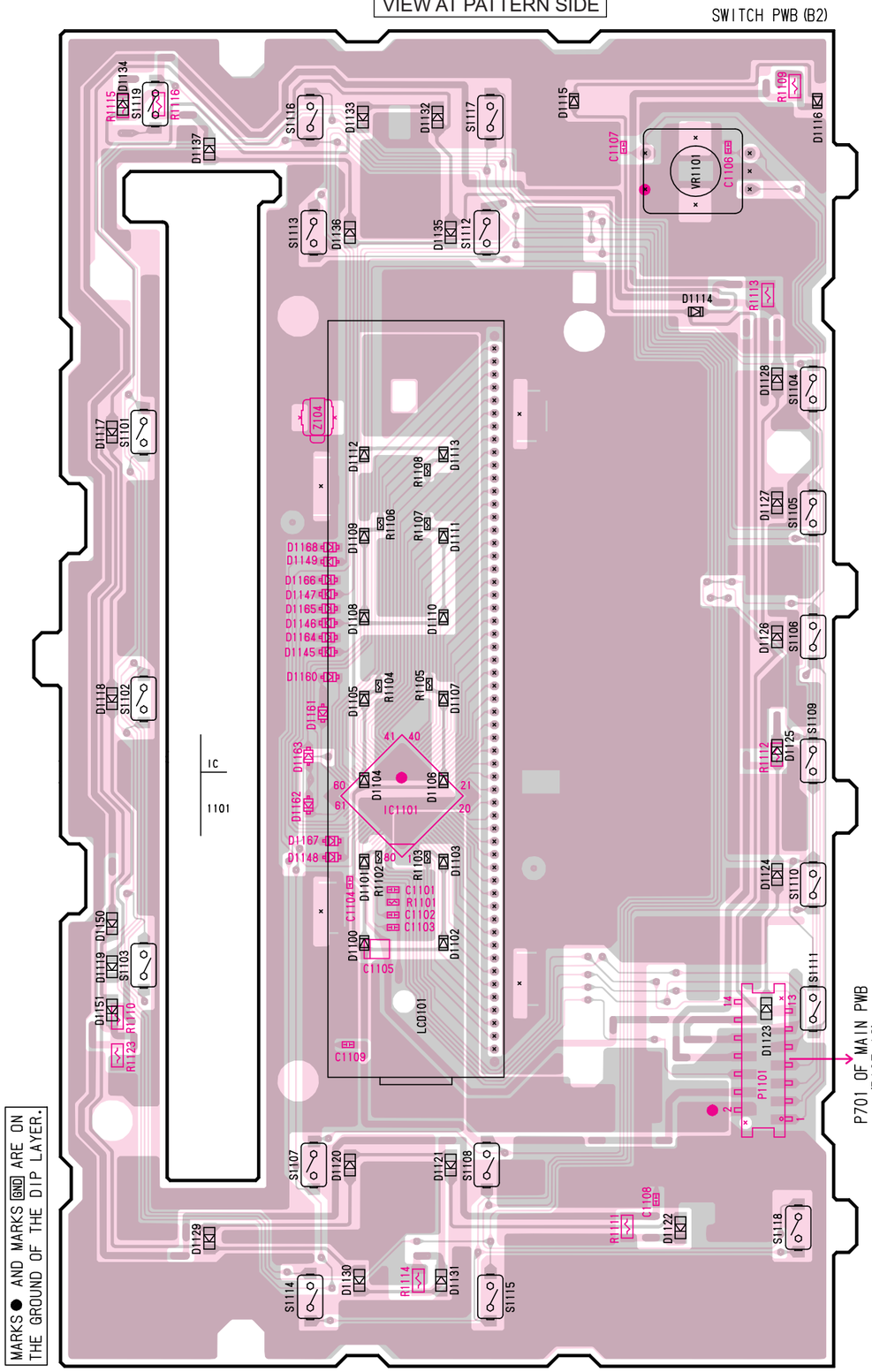
Switch PWB(B2) section



PRINTED WIRING BOARD

Switch PWB(B2) section

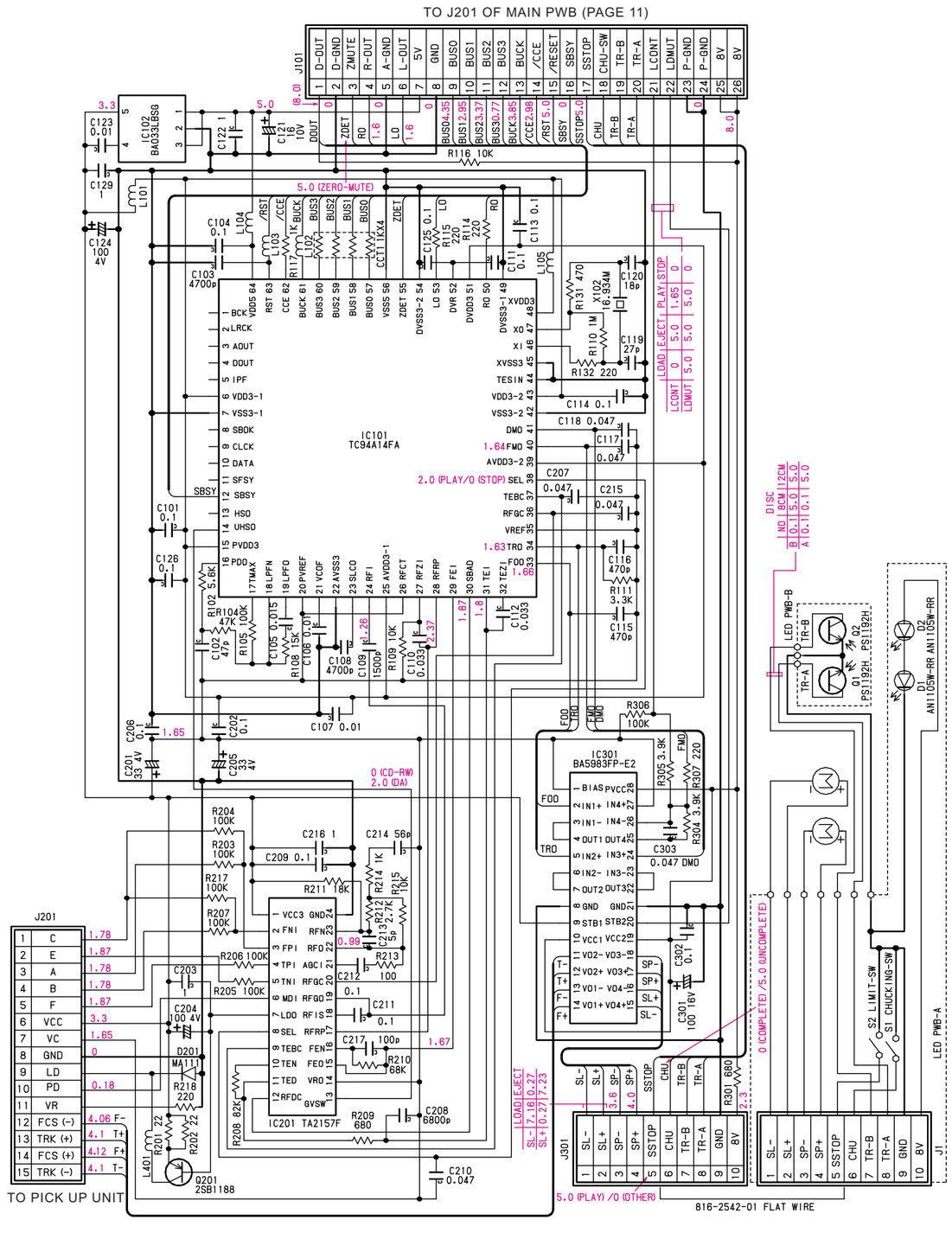
VIEW AT PATTERN SIDE



MARKS ● AND MARKS GND ARE ON THE GROUND OF THE DIP LAYER.

CIRCUIT DIAGRAM

CD PWB(B4) / LED PWB(B5) section



PRINTED WIRING BOARD

CD PWB(B4) / LED PWB(B5) section